

**AMENDMENTS TO THE CLAIMS**

1. (Cancelled)

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45. (Currently Added) A method to allocate a network resource to a buyer agent operating on a buyer server, the method including:

receiving a data message from the buyer agent, the data message associating a bid with the network resource, and

based on the bid and an allocation rule, allocating the network resource to the buyer agent.

46. (Currently Added) The method of claim 45, where receiving includes:

receiving a data message at a resource agent operating on a resource server.

47. (Currently Added) The method of claim 45, where the network resource includes at least one of: a bandwidth, a buffer space, and a processing time.

48. (Currently Added) The method of claim 45, where:

the buyer agent is associated with a user, and,

the buyer agent operates on a buyer server located remotely from a computer associated with the user.

49. (Currently Added) The method of claim 45, where:

the buyer agent is associated with a user, and,

the data message is based on data provided by the user.

50. (Currently Added) The method of claim 45, where the bid is based on at least one of:

a buyer allocation rule for determining an allocation of a network resource,

a buyer valuation rule for determining a value of the network resource, and

a buyer strategy rule for determining a bid for a network resource based on the buyer allocation rule and the buyer valuation rule.

51. (Currently Added) The method of claim 45, where the bid is based on a truthful best reply strategy.

52. (Currently Added) The method of claim 45, where the bid is based on a measurement of the network resource.

53. (Currently Added) The method of claim 50, where the allocation rule is identical to the buyer allocation rule.

54. (Currently Added) The method of claim 45, where the allocation rule includes one of: an English Auction allocation rule, a continuous bid-ask allocation rule, a progressive second price auction allocation rule, and a hold option allocation rule.

55. (Currently Added) The method of claim 45, where allocating includes: generating at least one command based on a resource control protocol for allocating the network resource.

AI Contd  
56. (Currently Added) The method of claim 45, where allocating includes: generating at least one command based on one of SNMP and COPS for allocating the network resource.

57. (Currently Added) The method of claim 45, where allocating includes: generating at least one command for at least one device for controlling the network resource.

58. (Currently Added) The method of claim 45, further including: receiving a data message from a seller agent operating on a seller server, the data message associating a network resource with an offer to sell.

59. (Currently Added) The method of claim 45, further including: transmitting a data message to the buyer agent including data based on at least one of:  
an available quantity of the network resource,  
an allocation of the network resource,

a bid from the buyer agent,  
a bid from a different buyer agent, and  
an offer to sell from a seller agent operating on a seller server.

60. (Currently Added) The method of claim 45, further including:  
transmitting a data message to the buyer agent notifying the buyer agent that a bid  
received from the buyer agent is less than a bid received from a different buyer agent.

61. (Currently Added) The method of claim 60, further including:  
receiving a data message from the buyer agent associating an updated bid with the  
network resource.

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Contd  
62. (Currently Added) The method of claim 45, further including:  
receiving a data message from the buyer agent associating an allocated network resource  
with a different buyer agent, and  
based on the data message, reallocating the allocated network resource to the different  
buyer agent.

63. (Currently Added) The method of claim 45, further including:  
storing data based on at least one of:  
an available quantity of a network resource,  
an allocation of a network resource,  
a bid from a buyer agent, and  
an offer to sell from a seller agent operating on a seller server.

64. (Currently Added) A system to allocate a network resource from a resource agent  
operating on a resource server, the system including:  
a buyer server, and  
a buyer agent operating on the buyer server, the buyer agent capable of generating a bid  
for the network resource, transmitting a data message to the resource server, the data message

associating a bid with the network resource, and receiving an allocation of the network resource from the resource agent.

65. (Currently Added) The system of claim 64, where the buyer agent is capable of generating a bid for a network resource including at least one of a bandwidth, a buffer space, and a processing time.

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66. (Currently Added) The system of claim 64, where the buyer agent is capable of generating a bid for a network resource based on at least one of:

- data received from a user associated with the buyer agent,
- a buyer allocation rule for determining an allocation of the network resource,
- a buyer valuation rule for determining a value of the network resource, and
- a buyer strategy rule for determining a bid for the network resource based on the buyer allocation rule and the buyer valuation rule.

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